CITY OF LODI
INFORMAL INFORMATIONAL MEETING
"SHIRTSLEEVE" SESSION
CARNEGIE FORUM, 305 WEST PINE STREET
TUESDAY, JUNE 12, 2007

An Informal Informational Meeting ("Shirtsleeve" Session) of the Lodi City Council was held Tuesday, June 12, 2007, commencing at 7:01 a.m.

A. ROLL CALL

Present: Council Members – Hansen, Hitchcock, Katzakian, and Mayor Johnson

Absent: Council Members – Mounce

Also Present: Deputy City Manager Krueger, Deputy City Attorney Magdich, and City Clerk Johl

B. TOPIC(S)

B-1 "Update on White Slough Permit"

Deputy City Manager Krueger and Public Works Director Prima briefly introduced the subject matter.

West Yost representative, Kathryn Gies, provided a presentation regarding the status of the National Pollutant Discharge Elimination System permit. Specific topics of discussion included permit process overview, new permit requirements, constituents of concern, aluminum and compliance, chlorodibromomethane and dicholorobromomethane and compliance, nitrogen and compliance, salinity and compliance, mercury and compliance, flow increase, monitoring requirements, Title 22 requirements, studies, biosolid requirements, land application area requirements, and storage lagoon requirements.

Public Works Director Prima provided closing comments regarding the political side of regulations, 7 million gallons per day (MGD), airborne regulations, and biosolids application.

In response to Council Member Hansen, Ms. Gies stated every discharger does have to comply with ammonia requirements, which are based generally on pH levels in the water. She stated the City may want to contest this because the City's requirements are based on the Delta pH levels.

In response to Council Member Hansen, Ms. Gies stated contesting may delay the permit process because it may be remanded to staff for further work through either the State or Regional Boards.

In response to Mayor Johnson, Ms. Gies stated going through the appeal process may be worth it because the Regional Board is not necessarily clamping down through regulations and several agencies are contesting.

In response to Council Member Hansen, Ms. Gies stated the term of the permit is five years; although, it may expire and be administratively extended by staff, which may take it to seven years.

In response to Council Member Hansen, Ms. Gies stated the likely reason mercury compliance is not handled by the State is because it does not have the proper mechanism in place, funding or otherwise. She also stated there is a recent court case regarding mandating requirements without funding.

In response to Council Member Hansen, Ms. Gies stated compliance will be an ongoing effort because the requirements are generally for the term of the permit and new requirements may come with a new permit.

In response to Mayor Johnson, Ms. Gies stated the agreement with the agricultural community may need to be modified to ensure farming practices incorporate the biosolid land application requirement of three hours.

In response to Council Member Hansen, Ms. Gies stated that, while she is not sure why the three hour time frame was chosen, crops are important because of their nitrogen yield and alternatives to the land application may be available.

In response to Mayor Johnson, Ms. Gies stated she is not sure if land application will still be needed in 15 years, but options may be available so that it is not needed.

In response to Council Member Hansen, Mr. Prima stated no one really has an idea of what the financial offset program will look like at this time, but staff will bring that information to Council when it comes forth.

In response to Council Member Hansen, Mr. Prima stated it would not be cost effective for the City to do as Sacramento County is doing in recycling and selling fertilizer on a grander scale, but Sacramento County may be interested in working with the City.

In response to Council Member Hansen, Mr. Prima stated the cost of the studies is not built into the fund, but it may be available from the capital program.

In response to Council Member Katzakian, Mr. Prima stated the monthly service charge from Flag City will cover the operational costs with a little extra.

In response to Council Member Hitchcock, Mr. Prima stated Flag City is paying its share of necessary updates through one-time capacity fees and the construction costs on top of those amounts. He stated that Flag City can be no more stringent than the City's permit with the State.

In response to Council Member Hitchcock, Mr. Prima stated the City does have the ability to control the levels of salinity received from Flag City into the City's system.

In response to Council Member Hitchcock, Ms. Gies stated the City is in front of other agencies in dealing with the permit issues because it already has the filters and is working on controlling the constituents. Ms. Gies stated this is advantageous to the City because everyone has to deal with the same requirements at some point and the Regional Board staff views this as proactive. She also stated that the specifics regarding the constituents themselves come from the Environmental Protection Agency; not the State.

In response to Council Member Hitchcock, Ms. Gies stated the most common practice amongst agencies is to discharge into some form of water, whether it is the Delta or a drain, and recycling is becoming very big.

In response to Council Member Hitchcock, Ms. Gies stated the current 7 MGD permit will increase to 8.5 MGD when the new construction project is completed. Ms. Gies confirmed this would provide an additional 2.1 MGD before more growth, not including the Flag City amount which is .3 MGD. Ms. Gies stated the estimated date for the 8.5 MGD is summer 2009. She also stated mercury can come from a variety of sources including fluorescent lighting and dentistry and public outreach is an important component of controlling the levels to the best of our ability.

In response to Council Member Hitchcock, Ms. Gies stated the only factors she can envision reducing the overall capacity for 8.5 MGD is ammonia and aeration level.

In response to Council Member Katzakian, Mr. Prima stated that, so long as the City continues to process more internally while discharging less, it is fine.

C. COMMENTS BY THE PUBLIC ON NON-AGENDA ITEMS

None

D. ADJOURNMENT

No action was taken by the City Council. The meeting was adjourned at 8:30 a.m.

ATTEST: Randi Johl, City Clerk

AGENDA ITEM B-1

CITY OF LODI
COUNCIL COMMUNICATION

AGENDA TITLE: **Update on White Slough Permit**

MEETING DATE: **June 12, 2007 (Shirtsleeve Session)**

PREPARED BY: **Public Works Director**

RECOMMENDED ACTION: None; discussion only.

BACKGROUND INFORMATION: The City's wastewater discharge permit is in the process of being renewed. Recently, Central Valley Regional Water Quality Control Board staff provided City staff with an administrative draft permit. Staff had a number of questions and comments on details of the permit and met with Regional Board staff who tentatively agreed to most of the City's comments.

At the meeting, staff and our consultants, West Yost and Associates, will review the permit process and noteworthy requirements, as well as related issues. (We anticipate having the revised permit prior to the Shirtsleeve Session date but do not have it as of June 7, 2007, thus our presentation is not complete.)

FISCAL IMPACT: *Not applicable.*

FUNDING AVAILABLE: Not applicable.

Richard C. Prima, Jr.
Public Works Director

RCP/pmf

APPROVED: _____
Blair King, City Manager

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6/7/2007

City of Lodi

Water Pollution Control Facility

NPDES Permit Status Update

WEST YOST ASSOCIATES
Consulting Engineers

June 12, 2007

Presentation Overview

- New Permit Status Report
- New (Noteworthy) Permit Requirements
- Studies
- New Biosolids Handling Requirements (San Joaquin County Air Board)

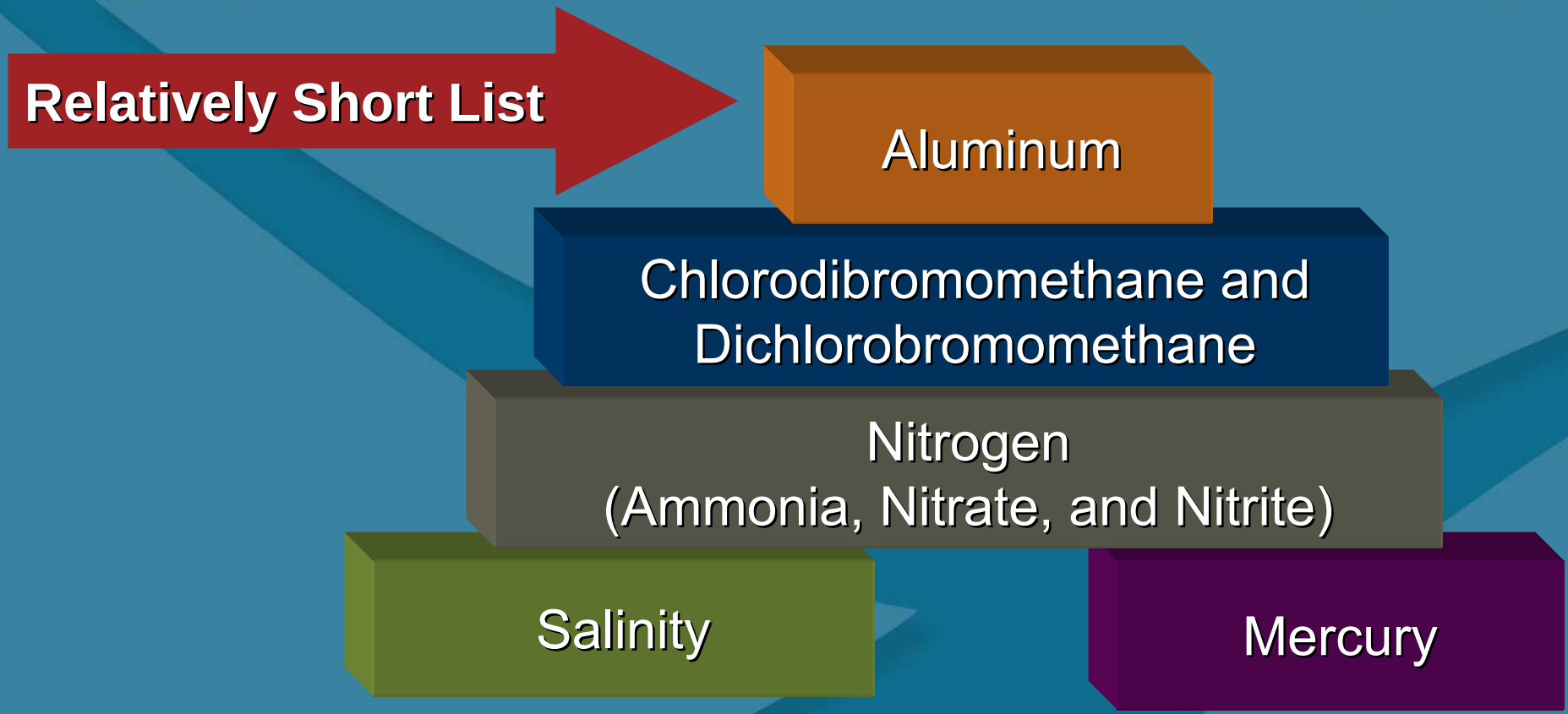
New Permit Status Report

Permit Process Overview

New (Noteworthy) Permit Requirements

- Constituents of Concern
- Discharge Flow Increase (7.0 to 8.5 mgd)
- Monitoring Requirements
- Title 22 Requirements

Constituents of Concern



Compliance Schedules Are Provided For All Constituents of Concern

Aluminum

Effluent Limit Is 66 µg/L as Monthly Average

Current Effluent Average is <40 µg/L (Since Filtration Upgrade)

One-Time "Hit" at 200 µg/L

Aluminum Compliance

Byproduct of the Treatment Process (Coagulation)

Studies Currently Being Conducted to Identify Chemical Alternatives

Cost of Compliance is Relatively Minor

Compliance Deadline September 2012

Chlorodibromomethane and Dichlorobromomethane

Effluent Limits are 0.41 µg/L and 0.56 µg/L, Respectively, as Monthly Average

Current Effluent Averages Are <0.07 µg/L and <0.06 µg/L (Since UV Upgrade)

One-Time "Hit" at 1.1 µg/L and 1.2 µg/L

Chlorodibromomethane and Dichlorobromomethane Compliance

Byproducts of the Treatment Process (Chlorine Used for Foam Control)

Current Upgrade Provides Mechanical Foam Control

City Also Investigating Biological Control Options

Compliance Deadline May 2010

Nitrogen (Ammonia, Nitrate, and Nitrite)

Monthly Average Effluents Limits Are	**Ammonia = 0.5 mg/L** **Nitrate = 10 mg/L** **Nitrite = 1.0 mg/L**
Current Effluent Averages Are	**Ammonia = 2.1 mg/L** **Nitrate = 8.7** **Nitrite = 2.7**

- Ammonia is a Naturally Occurring Compound in Wastewater
- Ammonia is Converted to Nitrite, and then Nitrate in the Treatment Process

Nitrogen Compliance

Current Upgrade Will Provide Most of the Necessary Treatment Improvements

Nitrogen Removal is a Sensitive Process and May Not Consistently Meet Criteria

Ammonia Limits are More Stringent than Anticipated

Studies Being Completed to Assess Impact of this Change

City May Elect to Contest the Limits

Compliance Deadline September 2012

Salinity

Salinity is the Dissolved Mineral (or Salt) Content of a Body of Water

Minerals Dissolved in Water Have a Positive or Negative Charge

Electrical Conductivity is a Measure of this Charge (and Therefore is a Measure of the Dissolved Mineral Content)

Salinity (cont.)

Agricultural Goal For Electrical Conductivity → **700 µmhos/cm**

Interim Limit → **780 µmhos/cm** as Annual Average (Source Water Plus 500)

Current Long-Term Effluent Average → **630 µmhos/cm**

Salinity Compliance

Site Specific Salinity Study Required

- Determine the EC Levels That Are Appropriate (Default Value of 700 µmhos/cm)
- Submit Results for Inclusion in Next Permit

Pollution Prevention Plan for Salinity (Influent Source Control / Water Supply)

Annual Reports Required to Demonstrate Progress in Meeting Objectives

Mercury

That's 1/20 of a Teaspoon!

Monthly Loading Limit of 0.013 pounds/month

Historic Maximum is 0.012 pounds/month

City's Discharge will be "Capped" at Current Levels In Future Permits

City May Get "Credit" For Flag City Flows

Mercury Compliance

Source Control Must Be Evaluated

Long-Term Efforts Could Include Payments to an Offset Program

Flow Increase

Current Permitted Dry Weather Discharge Flow → 7.0 mgd

2006 Dry Weather Discharge Flow → 6.3 to 6.4 mgd

Available Capacity → 0.6 mgd

Flag City Flow → Less Than 0.2 mgd

~ 1,000 New Residents → 0.1 mgd of Flow

Flow Increase

Permitted Discharge Flow Increased to 8.5 mgd After

- **The Current Expansion Project is Completed (Early 2009)**
- **The City Demonstrates Compliance with Effluent Limits for Nitrogen**
- **The City Submits a Request for an Increase in the Permitted Discharge Flow Rate**

Monitoring Requirements

Influent and Effluent Monitoring Similar to Current Permit

New Monitoring for Storage Ponds

Reduced Frequency of Monitoring for Receiving Water

Increased Monitoring for Groundwater (Metals)

Title 22 Requirements

Permit Requires Filtered, Disinfected Water for NCPA and San Joaquin County Vector District Ponds

Requires Operation of Tertiary Facilities Year-Round

Other Options (e.g., Onsite Treatment at NCPA) Could Be Considered

Supporting Documentation to Be Provided in Title 22 Report

Studies

- Required Studies for Constituents of Concern
- Required Special Studies
- Required Groundwater Studies
- Optional Studies for Permit Relief

Required Studies For Constituents of Concern

Corrective Action Plan/ Implementation Schedule

Due March 2008 (September 2008 for Some Constituents)

Workplan September 2008; Study Complete 2010

Pollution Prevention Plan

Treatment Feasibility Study

Workplan September 2008; Study Complete 2010

Estimated Cost For Completion: $150,000 to $250,000 Over Three Years

Required Special Studies

Toxicity Reduction Evaluation Workplan — December 2007

Receiving Water Temperature Study — Workplan March 2008; Study Complete 2010

Industrial Influent Characterization Study — Workplan March 2008; Study Complete 2010

Title 22 Recycled Water Engineering Report — Workplan Sept. 2008; Draft Sept. 2010; Final March 2011

Estimated Cost of Completion: $300,000 to $400,000 Over Three Years

Required Groundwater Studies

Background Characterization Study

- Workplan Due November 1, 2007
- Study Complete By November 2009

Estimated Cost of Background Study: $50,000 to $100,000 Over Two Years

Best Practicable Treatment and Control (BPTC) Evaluation

- Study Complete By August 2010
- Identify Additional Control Measures That Will Be Implemented (Treatment, Operations, Management)
- Required for All Constituents That Exceed Background Water Quality
- BPTCs In Place Within 4 Years of Study Completion (2014)

Estimated Cost of BPTC Study: $50,000 to $100,000 Over One Year

Current Groundwater Study - Status

Recently Completed Groundwater Investigation Study Identified Background Monitoring Locations

City Currently Evaluating Land Application Area BPTCs

Biosolids and Recycled Water Handling Improvements May Be Best Course of Action

Optional Special Studies for Additional Permit Relief

Dilution/Mixing Zone Studies	**$50,000 to $100,000**
Ammonia Study (To Assess the Presence of Salmonids)	**<$10,000**
Hardness Study	**$50,000 to $100,000**
Site Specific Water Effects Ratios for Metals	**$200,000 to $300,000**

Total Potential Cost of Completion: $300,000 to $500,000 Over Three Years

Studies Summary

Description	Estimated Costs (1,000 Dollars)	Anticipated Time-Frame
Required Studies For Constituents of Concern	$150 to $250	3 Years
Required Special Studies	$300 to $400	3 Years
Required Groundwater Studies (Does Not Include BPTC Improvements)	$100 to $200	3 Years
Total Required Studies Costs	$550 to $850	3 Years
Optional Special Studies for Additional Permit Relief	$300 to $500	> 5 Years
Total Potential Studies Costs	$850 to $1,350	> 5 Years

New Biosolids Requirements (San Joaquin Unified Air Pollution Control District)

San Joaquin Air District Adopted New Biosolids, Animal Manure, and Poultry Litter Operations Rule on March 15, 2007

City Will Need to Modify Current Air Board Permit and Demonstrate Compliance By 2008

Separate Requirements for Treatment and Land Application

Opportunities for Compliance Schedule Extensions Should Be Explored

Land Application Area Requirements

Affects Facilities That Land Apply > 10,000 Wet Tons Per Year

City Currently Land Applies ~ 20,000 Wet Tons Per Year

Land Application Area Requirements (cont.)

Biosolids Must Be Incorporated Into Soil Within Three Hours of Land Application

Significantly Different From Current Operations

Dewatered Solids *May* Be Less Than 10,000 Wet Tons Per Year (Just Barely!)

Interim Control Measures May Be Feasible

Compliance Required By March 15, 2008

Storage Lagoon Requirements

Affects Facilities That Have "Composting" Throughput of > 100 Wet Tons Per Year

"Composting" Defined as "The Controlled Biological Decomposition of Sewage Sludge Under Aerobic (With Air) or Anaerobic (Without Air) Conditions"

Biosolids Lagoon Likely Classified as a "Composting" Facility

City Currently Throughputs > 60,000 Wet Tons Per Year From Digesters

If Dewatered, Total Solids Composted Would be ~20,000 Wet Tons Per Year

Storage Lagoon Requirements (Cont.)

To Comply, City Must Implement Four Mitigation Measures For the Biosolids Lagoon

Three Mitigation Measures Are Currently Met (Moisture Content, Carbon to Nitrogen Ratio, Daily Cleaning)

City Will Need To Investigate Options For Fourth Mitigation Measure Requirement

Compliance Required By September 15, 2008

Questions?

WEST YOST
ASSOCIATES
Consulting Engineers